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THE PARE T ROTHSYNI GSRIAN YERL. THE LAMBE 07/439,093 11/17/89 BARCLAY HERE W GECKLE, C SHERIDAN, ROSS & MCINTOSH ONE UNITED BANK CENTER THIRTY-FIFTH FLOOR PARMUM ASPAS TINU THA 1700 LINCOLN STREET 188 DENVER, COLORADO 80203 DATE MARLED. 10/29/90 de mercell
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 TOP, AND TRADLANCERS. A shortened statutory period for response to this action is set to expire-__ month(s), __ Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133 Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION: 2. Notice re Patent Drawing, PTO-948.
4. Notice of Informal Patent Application, Form PTO-152
6. PTO-948.
9. Notice of Informal Patent Application, Form PTO-152
9. Notice re Patent Drawing, PTO-948.
9. Notice re 1. Notice of References Cited by Examiner, PTO-892. Notice of Art Cited by Applicant, PTO-1449.
 Information on How to Effect Drawing Changes, PTO-1474. Part II SUMMARY OF ACTION 1. Claims 2. Claims 3. Claims 4. Claims 5. Claims 6. Claims __ are subject to restriction or election requirement. 7. This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes. 8. \square Formal drawings are required in response to this Office action. 9. The corrected or substitute drawings have been received on ____ are acceptable; acceptable (see explanation or Notice re Patent Drawing, PTO-948). 10. The proposed additional or substitute sheet(s) of drawings, filed on ___ ____. has (have) been: 🗖 approved by the examiner; disapproved by the examiner (see explanation). 11. The proposed drawing correction, filed _ ______has been _ approved; _ disapproved (see explanation). 12. Acknowledgement is made of the claim for priority under U.S.C. 119. The certified copy has been received on the claim for priority under U.S.C. 119. __; filed on _ been filed in parent application, serial no. ___ 13. Since this application apppears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213. 14. Other **EXAMINER'S ACTION** PTOL-326 (Rev.9-89)

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Please disregard the Office Action of 10/18/90. The following action has been mailed in its place.

Restriction to one of the following inventions is required under 35 U.S.C. § 121:

- I. Claims 1-5 and 35-49, drawn to a method for selection and a method of culturing, classified in Class 435, subclass 243+.
- II. Claims 6-34, drawn to microorganisms, classified in Class 435, subclass 254.
- III. Claims 50-60, drawn to a method of making a microbial product, classified in Class 435, subclass 134.
- IV. Claims 62, 77 and 78, drawn to a compositions, classified in Class 260, subclass 405.5.
- V. Claims 79-93 and 97-103, drawn to a microbial product, classified in Class 435, subclass 134.
- VI. Claims 94-96, drawn to a microbial product, classified in Class 435, subclass 134.
- VII. Claims 104-107 and 111-119, drawn to a composition, classified in Class 424, subclass 520 or in Class 514, subclass 560.
- VIII. Claims 108-110, drawn to an animal feed product, classified in Class 424, subclass 520.
- IX. Claims 120-126, drawn to a method of making poultry eggs, classified in Class 424, subclass 581.

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X. Claims 127-131, drawn to an animal feed product, classified in Class 424, subclass 548.

The inventions are distinct, each from the other because of the following reasons:

Inventions III and I are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations. (M.P.E.P. § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the method of Group I does not require the concentration and preservation of cells as claimed in the invention of Group III. The subcombination has separate utility such as in the preparation of enzymes, protein sources and the immediate use of the omega -3 fatty acid.

Inventions I, III and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (M.P.E.P. § 806.05(f)). In the instant case the microorganisms as claimed can be prepared by a materially

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different process such as direct isolation from the soil.

Inventions I, III and IV, VII, VIII, X are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (M.P.E.P. § 806.05(f)). In the instant case the omega 3-fatty acid can be made by a materially different process such as the extraction of coconut oils and linseed oils.

Inventions I and V and VI are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (M.P.E.P. § 806.05(f)). In the instant case the process involves a difference in scope in the selection method and the process would encompass the preparation of microbial products other than that of Group V and Group VI.

Inventions II and IV, V, VI, VII, VIII and X are related as mutually exclusive species in intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (M.P.E.P. § 806.04(b), 3rd paragraph), and

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the species are patentably distinct (M.P.E.P. § 806.04(h)).

In the instant case, the intermediate product is deemed to be useful as being capable of the production of enzymes, protein and other metabolites and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. § 103 of the other invention.

Inventions VI, VII, VIII and V and VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations. (M.P.E.P. § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because of the differences in scope of the microbial products and oils obtained thereby. The subcombination has separate utility such as usefulness in the production of surfactants.

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Inventions IV, V, VI, VII and VIII and IX are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (M.P.E.P. § 806.05(h)). In the instant case the products as claimed can be used in a materially different process such as in the production of surfactants.

Inventions IX and X are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (M.P.E.P. § 806.05(f)). In the instant case the product as claimed can be made in a materially different process such as feeding an animal with linseed or fish oil.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification restriction for examination purposes as indicated is proper.

Applicant is further required to elect an ultimate species for examination purposes. In the case of Groups in which microorganisms are claimed and various genera or to a larger

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extent, an entire order of fungi is encompassed, applicant must elect a specific strain to be examined. In regard to Groups in which omega -3 fatty acids are encompassed in the claim, applicant must elect a single disclosed independent and patentably distinct species such as a specific omega -3 fatty acid (i.e. eicosapentaenoic acid). A single disclosed species is a particular species disclosed in the specification. The elected species as well as all obvious variants thereof will be examined.

Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed.

The disclosure is objected to because of the following informalities: in claim 1, periods occur within the claim which are incorrect. Applicant is asked to refer to M.P.E.P. 608.01(m) in regard to form of claims. A period should only exist within a claim when abbreviations are utilized. Appropriate correction is required.

Claims 1-5 are rejected under 35 U.S.C. § 112, first paragraph, for the reasons set forth in the objection to the specification.

In claim 1, the recitation of "capable of heterotrophic growth and capable of producing omega-3 fatty acids" is vague and indefinite as it is unclear under what conditions the microorganism is "capable" of the growth and production cited.

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The recitation of "selecting candidate microorganisms" is vague and indefinite. It is unclear what is mean to by the term candidate and the criteria for determining "candidate microorganisms."

In claim 2, there is no antecedent basis for "the organisms" and it is unclear in what step of the process according to claim 1, the "collection" of the organisms takes place.

Any inquiry concerning this communication should be directed to Carol Geckle at telephone number (703) 368-0/96.

Geckle/th October 23, 1990 DOUGLAS W. ROBINSON Jupervisory Patent Examiner Group/80 art Unit 188